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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,426	06/27/2003	Richard T. Oesterreicher	'IVBU-0124	7950

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EXAMINER	
AVELLINO, JOSEPH E	
ART UNIT	**PAPER NUMBER**
2143	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/609,426	OESTERREICHER ET AL.	
	Examiner	Art Unit	
	Joseph E. Avellino	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however; may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 6/27/03 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/27/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-32 are presented for examination; claims 1, 13, and 21 independent. The Office acknowledges the Preliminary Amendment dated October 13, 2006 adding claims 21-32.

Specification

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on June 27, 2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner. See enclosed PTO-1449.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-32 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 21-40 of copending Application No. 11/468,613. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claim language of the '613 application essentially recites the exact same limitations as its parent case, the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 13-20 are rejected under 35 U.S.C. 101 because they are not tangible.

Exemplary claim 13 recites "a server", which, in the art, is construed as merely a software program which can be executed on a computer. Applicant is requested to

amend the claim such that the server is construed as a "machine", instead of a mere server program.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 8-11, 13-16, 20, 21, 22, 24, and 28-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Narendran et al. (USPN 6,070,191) (hereinafter Narendran).

7. Referring to claim 1, Narendran discloses a method for selecting a server (i.e. document server) from a plurality of servers (i.e. all the servers included in Figure 1, ref. 10, specifically the Round Robin DNS, Redirection servers, and Document servers S_1-S_N) to service a request for content (i.e. document stored on a document server), comprising:

designating a director (i.e. redirection server) from the plurality of servers to receive the request, wherein the designation is made on a request-by-request basis (i.e. DNS server 12 multiplexes the requests among the redirection servers 14-1, 14-2) (col. 4, lines 41-45); and

allocating to the director the task of selecting a server to service the request from the plurality of servers; said server having stored therein the content (i.e. document) the director using a state table using parametric information for servers in the plurality of servers, wherein said parametric information comprises information identifying assets (i.e. documents) maintained on each server (i.e. based on the distribution of the documents throughout the servers, the redirection servers will select a server which actually has the document located on the server (i.e. with respect to Figure 2, redirection server 14-1 would inherently know that document 2 is located on document servers S_2 and S_3 and would not select server S_1 to service document 2) (Figure 2; col. 4, lines 45-67).

8. Referring to claim 2, Narendran discloses the designation of the director is done in a round-robin fashion (col. 3, lines 57-61).

9. Referring to claim 4, Narendran discloses selecting the director if the content is present on the director (i.e. since the director never has the document, since the directors of Narendran are redirection servers, this satisfies the limitation since the selection of the director will only occur if the content is present on the director) (e.g. abstract; col. 4, liens 20-25).

10. Referring to claim 8, Narendran discloses said parametric information further includes whether each asset is a new release (i.e. a "dummy" copy is made "active" in case of server failure) (col. 7, line 61 to col. 8, line 7).

11. Referring to claim 9, Narendran discloses rejecting the request if the content is not present on any of the servers (Narendran discloses using HTTP, see col. 4, line 2, which inherently allows that if a document is not found on the server, sending a response code of "404 – File not Found" and terminating the connection).

12. Referring to claim 10, Narendran discloses forwarding the request to the selected server (the Office takes the phrase "forwarding the request" to be construed as "allowing the "selected server" the ability to handle the request") (col. 4, lines 20-25).

13. Referring to claim 11, Narendran discloses redirecting the request to the selected server (col. 4, lines 20-25).

14. Referring to claim 13, Narendran discloses the invention substantively as described in claim 1. Narendran further discloses a communication component for sending changes to the state table to the plurality of servers (i.e. update the probabilities) (col. 12, lines 11-38).

15. Referring to claim 14, Narendran discloses the server is a member of a load-balancing group, and the communication component sends changes to servers in the load-balancing group (Figure 4; col. 12, line 58 to col. 13, line 10).

16. Claims 15, 16, 20, 21, 22, 24, and 28-31 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narendran

18. Referring to claim 3, Narendran discloses the invention substantively as described in claim 1. Narendran does not specifically disclose designating a director based on the lowest load, however selecting a server based on lowest load is well known in the art (i.e. load balancing). By this rationale, "Official Notice" is taken that the concept and advantages of selecting a server on the basis of lowest load is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to

modify the system of Narendran since Narendran does disclose that other DNS techniques may be used instead of Round Robin DNS (col. 4, line 44). This would provide sufficient motiviation to one of ordinary skill in the art to find other techniques of server selection other than Round Robin DNS, eventually finding the well known system of lowest load selection.

19. Claim 23 is rejected for similar reasons as stated above.

Claims 5-7, 12, 17-19 25-27, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narendran in view of Aversa et al. ("Load Balancing a Cluster of Web servers Using Distributed Packet Rewriting"; Boston University; 2000) (hereinafter Aversa).

20. Referring to claim 5, Narendran discloses the invention substantively as described in claim 1. Narendran further discloses including a functional state (i.e. wether the server has failed or not) (e.g. abstract), however does not specifically disclose that the parametric information includes a current load of each server. In analogous art, Aversa discloses another load balancing system which discloses selecting a server based on the current load of a server (p. 3, section 3.1, col. 1, "whereby the server with the lowest load is selected "). It would have been obvious to one of ordinary skill in the art to combine the teaching of Aversa with Narendran in order

to take into account the loads of the document servers of Narendran, thereby reducing the likelihood of server overload.

21. Referring to claims 6 and 7, Narendran in view of Aversa discloses the invention substantively as described in claim 5, however does not specifically disclose that the parametric information comprises whether each server comprises extended memory or an inline adaptable cache, however one of ordinary skill would find this obvious to include this into the load calculations since the inline cache or extended memory would greatly affect the ability of the server to handle connections. By this rationale, "Official Notice" is taken that both the concept and advantages of taking into account whether the server has extended memory or an inline adaptable cache into the load calculations of Aversa is well known in the art. It would have been obvious to one of ordinary skill in the art to modify the teaching of Narendran-Aversa to include the use of extended memory or caching into the load calculations since Aversa lists numerous metrics which can be used to determine the load (i.e. open TCP connections, CPU utilization, etc.) (p. 3, section 3.1). This would motivate one of ordinary skill in the art to find more metrics which can be used to determine load, eventually finding the utilization of extended memory and caching.

22. Referring to claim 12, Narendran discloses the invention substantively as described in claim 1. Narendran does not specifically disclose selecting the server by calculating a load factor, identifying servers are below threshold limits, and selecting a

server from the available servers with the lowest load factor, otherwise selecting a server having the lowest load factor from the plurality of servers having the content. In analogous art, Aversa discloses calculating a load factor for each server (p. 3, col. 1), identifying as available servers one or more servers whose parameters below threshold limits (i.e. determine whether host's load is less than MaxLoad), selecting a server from the available servers having the lowest load factor (i.e. "server with the lowest load is selected") (p. 3, col. 1 It would have been obvious to one of ordinary skill in the art to combine the teaching of Aversa with Narendran in order to take into account the loads of the document servers of Narendran, thereby reducing the likelihood of server overload.

23. Claims 17-19 25-27, and 32 are rejected for similar reasons as stated above.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph E. Avellino, Examiner
December 11, 2006